Dry Run Lessons Learned
DFRC Aug. 29- Sep. 23, 2011

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Guidelines

- Planning and discussion at 8am PDT
  - Used Web-Ex (essential)
  - Met forecast (rotation set by J. Halverson) with on-line written reports
  - Discussion of possible targets
  - Work-up of hypothetical flight plans
  - Discussion of schedule & review of whether the plane could have actually flown as per the previous day's plan
  - Written report by the Mission Scientist of the day
- Schedule updated daily w/r to conditions at WFF (flight planning spreadsheet)
- Flight rules (very useful)

Flight Rules

- Alert – 48hr prior to flight. Includes a detailed flight plan (12pm EDT)
- Go-no-go – no later than 20hr prior to flight *(before pre-flight)
- Cancelation – T-4hr (72hr preflight limit)
- Flight duration: <26hr
- Daylight takeoff & landing (civil twilight: 9/1 0604-1959, 9/30 0630-1913)
- Down day: 1 hard down day in an 11-day period
- Crew: 3 air crews, TO/land from GHMOF. Flight controlled from DFRC GHOC
- AC turnaround: 48hr turnaround for 1 AC.
- Wx: Winds < 15kts (cross), 30 (head), 25kts (tail). No lightning within 5nm, min. RVR 1 mile, no standing water on runway
- Chase aircraft requires 2500 ft ceiling (10AM & 2PM TAFS)
- In-flight Wx: No Cbs within 25 nm. Above FL500 – no lightning within 25NM in where cloud tops are reported at FL500 or higher. Maintain at least 10kft vertical separation from reported lightning if cloud tops are below FL500. No over-flight of cumulus tops higher than FL500, No flight into fcst or reported icing. No flight into fcst or reported moderate or severe turb
- Dropsondes over water

Lessons Learned

- We did not fly as often as we desired & might not have used all of our flight hours because of low ceilings and rain.
- We need to strategically call hard down days – a flight can happen 2 days after a hard down day.
- Better to alert for flight and then cancel than to miss an opportunity.
- Should have pilot participation (or on call for questions) in planning meetings
- Overland flights are problematic. Safety to determine acceptable areas
- A submission of 3 flight plans 48hr prior is OK, but should down-select to 1 within 24hr. Need dropsonde plan with each flight plan – can be altered with FAA permission

Lessons Learned (continued)

- Should have WFF fcst participation in weather discussions (e.g., fcst severe Wx/precip/low clouds at landing could lead to a flight cancellation)
- Labor – Sufficient to schedule/assign the in-field mission scientist and forecasters 2-3 days in advance. They should plan to support the deployment for a minimum of one week, with a minimum one full work day overlap with their replacement(s).
- Tools: WebEx, Compass, Flight Planner (need to train up a few more persons)

Things for 2012

- Dry run did not include coordination with other aircraft and CARCAH notification or Tri-Agency Webinar brief and objectives. How will these factors adjust our flights?
- Dry run did not include the reality of PMOF work running in parallel with fcst meeting and flight planning. Do we have enough staff and can we adequately coordinate?

Daily Schedule

Time (Local)	Daily HS3 Activity
09:00	Mission Forecaster Presentation
10:00	Inter-agency coordination meeting
11:00-13:00	Flight planning
12:00	Dual-Agency Webinar brief and objectives (optional)
13:00	Alerts for next several days out and Go /No go decision for tomorrow (~48hr for GH)

	GH	P-3	G-IV	C-130
Decision	48hr	24hr	24hr	24hr
Preflight Brief	T-4	T-2	T-2	
No-go call	T-4	T-5	T-5	
Power On	T-1	T-1	T-1	
Doors Close		T-1	T-1	T-1
Takeoff	T-0	T-0	T-0	T-0
Land	T+28	T+8.5	T+8.5	
Debrief	T+29	T+9	T+9	